

CLAIMS

What is claimed is:

- 1 1. An electronic device comprising:
2 a processor; and
3 a digitizer pad formed at least partially from a first material, the first material being
4 deflectable to generate an electrical signal, the first material integrated with the digitizer pad
5 to provide a shaped feature on an exterior surface of the digitizer pad, the shaped feature
6 being deflectable to detect contact with an external object on one or more contact points, the
7 first material signaling an input for the processor corresponding to the external object
8 contacting the one or more contact points.
- 1 2. The electronic device of claim 1, wherein the first material detects a
2 position of the external object contacting the shaped feature, the position
3 corresponding to a function performed by the processor in response to being
4 signaled the input.
- 1 3. The electronic device of claim 1, wherein the input to the processor
2 causes the processor to implement a configuration for an image provided on the
3 digitizer pad.
- 1 4. The electronic device of claim 1, wherein the shaped feature includes a
2 recess accessible from the exterior surface of the electronic display.

1 5. The electronic device of claim 3, wherein the one or more contact points
2 include a first contact point positioned to identify an input for scrolling the
3 image on the digitizer pad in a first direction.

1 6. The electronic device of claim 5, wherein the one or more contact points
2 include a second contact point positioned to identify an input for scrolling the
3 image on the digitizer pad in a second direction.

1 7. The electronic device of claim 1, wherein the first material comprises a
2 conductive paste.

1 8. The electronic device of claim 1, wherein the one or more contact points
2 include a first contact point positioned to identify a selection entered from a
3 user of the electronic device.

1 9. The electronic device of claim 4, further comprising a cap positioned
2 within the recess, the cap being moveable by the external object to contact the
3 one or more contact points.

1 10. The electronic device of claim 9, further comprising a gel volume
2 positioned within the recess between the cap and the one or more contact points.

1 11. The electronic device of claim 4, further comprising a gel volume
2 positioned within the recess to be intermediate to the external object contacting
3 the one or more contact points.

1 12. The electronic device of claim 1, further comprising a display having a
2 display surface formed on an exterior panel of the electronic device, wherein at
3 least a portion of the digitizer pad overlays the display to detect contact made on
4 the display surface.

1 13. An electronic device comprising:
2 a processor; and
3 a housing formed at least partially from a first material, the first material having a
4 characteristic of generating an electrical signal in response to a contact by an external object,
5 the first material being formed to provide a shaped feature on an exterior surface of the
6 housing, the shaped feature including one or more contact points to detect contact from the
7 external object, the first material signaling an input to the processor corresponding to the
8 external object contacting the one or more contact points.

1 14. The electronic device of claim 13, wherein the housing detects a position of the
2 external object contacting the shaped feature, the position corresponding to a function
3 performed by the processor in response to being signaled the input.

1 15. The electronic device of claim 13, wherein the shaped feature includes a recess
2 accessible from the exterior surface of the housing.

1 16. The electronic device of claim 13, wherein the first material comprises a conductive
2 paste.

1 23. The display module of claim 17, wherein the first thickness includes an air gap that
2 spaces the first layer from the second layer until the first layer is deflected to make contact
3 with the second layer.

1 24. An electronic device comprising:

2 a housing formed at least partially from a first material having a characteristic of
3 generating an electrical signal in response to a contact by an external object, the first material
4 signaling an input for the processor when the housing is contacted at a contact point; and
5 a gel volume positioned over the contact point of the housing; and
6 an end piece attached to the gel volume, the end piece being moveable to displace an
7 interior mass of the gel volume so as to deflect the contact point.

1 25. The electronic device of claim 24, wherein the end piece extends away from a surface
2 of the housing providing the contact point.

1 26. The electronic device of claim 24, wherein the gel volume is positioned over a planar
2 surface of the housing.

1 27. The electronic device of claim 24, wherein the housing is formed from a first layer,
2 an air gap, and a second layer spaced from the first layer by the air gap, the first layer and the
3 second layer being formed from the first material.

1 28. An electronic device comprising:
2 a processor;
3 a housing containing the processor; and
4 a three-dimensional contact-sensitive feature that is unitarily combined with the
5 housing, the feature being actuatable to signal an input for the processor.

1 29. The electronic device of claim 28, further comprising an analog-digital converter to
2 receive the input from the feature in an analog format, and to signal the input to the processor
3 in a digital format.

1 30. The electronic device of claim 28, wherein the three-dimensional contact sensitive
2 feature comprises a gel volume.

1 31. The electronic device of claim 28, wherein the three-dimensional contact sensitive
2 feature comprises a recess.

1 32. The electronic device of claim 28, further comprising a display module at least
2 partially formed to be part of the housing.